## LOG OF MEETING DIRECTORATE FOR ENGINEERING SCIENCES

Subject: Soft and Framed Carrier ASTM Task Group Meeting NAY 15 A 9: 57

Date of Meeting: April 12, 2000

Log Entry Source: Mark Kumagai, ESME AK 5/12/00

Place of Meeting: Regal Lager offices, Marietta Georgia

Commission Attendees: Mark Kumagai, ESME

Products Identified

Excepted by

Firms Nötified,

Comments Processed.

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## Non-Commission Attendees:

Attendee	Affiliation
Bengt Lager	
Jeff Lewis	Regal Lager Inc.
Steve Nagode	HS Industries, Inc.
Chris Lennert	REI
	Kelty Kids
Ron Hoffman	Graco
Russ Butson	
Jerry Drobrinski	Evenflo
Jeff Lipko	Revmar
veri Lipko	ITS

## **Summary of Meeting**

The subcommittee chairman reviewed the incident data presented at the February Meeting in Orlando, FL. Based on these incidents, the group agreed that the objectives of the meeting should be to; 1) Define the products involved in general categories; 2) Propose testing and other criteria for round robin testing; and 3) Focus on possible leg opening standard requirements. The group agreed to approach the two types of products similarly but with consideration of the different age/weight groups involved.

Framed Carrier: The group defined the minimum user to be the 5% 6-8 month child that is able to hold his/her head up. The maximum user will be up to the manufacturer. After inspecting various framed carriers including recalled products, the group proposed a restraint performance test by trying to pull a 6-month CAMI infant dummy through a leg opening. The 6-month CAMI used to demonstrate the test method was made overseas and was very flexible compared to other participant's CAMI. The group was able to pull the flexible CAMI out of recalled backpack. Additionally, a roll over & rotation test similar to the occupant retention test for strollers was proposed.

The group also discussed structural and stability tests as described below:

Proposed Static Load Test - A static load will be applied to the product, which is equal to 2.5 x the maximum load recommended by the manufacturer. The test load will be applied while the unit is suspended from its shoulder straps on a suitable test fixture to simulate the shoulders of an adult.

Proposed Dynamic load – A cyclical load will be applied to each while the unit is mounted on the test fixture. The load will be applied 1000 times with a cycle "stroke" of 3".

Proposed Tip over test—The group decided that a test similar to that in the stroller and playard tip over standard should be used. The angle proposed was 15 degrees.

Proposed Drop Test – since mobility is a consideration with these products, a drop test will be considered. The draft procedure will be similar to the Hook on High Chair Drop test.

**Soft Carriers:** The group agreed that the minimum user for soft carriers is an 8 lbm, 21-inch long child. The group agreed that the maximum user should be a 25-lb child for testing purposes. The group proposed to address falls through leg hole by limiting the leg hole opening. The group proposed a leg hole opening of 13-14 inch circumference to prevent the hip of the minimum user with a diaper/clothing from passing through the leg hole.

A 75-lb static load test was proposed for this product with the unit mounted on a test fixture simulating the shoulders of the adult user. A dynamic load test consisting of a 25-lb, 1000 cycle load and a 1-inch stroke will be applied to each carrier. The load will be applied while the unit is mounted on a test fixture simulating the shoulders of the adult user.

The group decided that individual draft test procedures would be written after the meeting and would be distributed to the Task Group for comment and testing. The group agreed to complete a first draft standard for the Fall ASTM Meeting in Conshohocken. The group decided that any other questions could likely be resolved with conference calls or E-mail.

The meeting was adjourned at approximately 3:00 PM.